

## CLAIMS

- 1    1.    A self-aligning peep sight system for mounting on an archery bow for sighting  
2        a target, the peep sight system comprising:  
3            a peep sight comprising:  
4                a sight body having a thickness and a width; and  
5                a sight aperture and a tether-securing aperture each extending  
6                    through a thickness of the sight body, the sight aperture  
7                    adapted to allow a line of sight through the aperture  
8                    when an archery bow is fully drawn and the tether-  
9                    securing aperture adapted to removably receive and  
10                  retain a first end portion of a tether substantially within  
11                  the sight body.

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1 2. The system of claim 1, the peep sight further comprising:  
2 a serving channel girdling the sight body substantially at the midpoint  
3 of its thickness, the serving channel adapted to accommodate at  
4 least one strand of a bowstring of an archery bow; and  
5 a serving hole extending through the width of the sight body  
6 connecting opposing serving channel portions, the serving hole  
7 adapted to receive a serving string there through, thereby  
8 facilitating serving of the peep sight in a secure, non-sliding  
9 fashion.

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1 3. The system of claim 1 further comprising an interfacing clip comprising a first  
2 side and an opposing second side, the first side and the opposing second side  
3 each comprising a power cable channel and a tether channel, wherein the  
4 opposing power cable channels are adapted to removably receive and retain a  
5 portion of a power cable of an archery bow, and wherein the opposing tether  
6 channels are adapted to removably receive and retain a second end portion of  
7 a tether.

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1 4. The system of claim 1, further comprising a tether having opposing first and  
2 second end portions, the first end portion removably coupled into the tether-  
3 securing aperture substantially within the sight body, and the second end  
4 portion adapted to be removably coupled substantially within an interfacing  
5 clip, such that when an archery bow is moved into its fully drawn position,  
6 tension in the tether aligns the peep sight.

1 5. A self-aligning peep sight system for mounting on an archery bow for sighting  
2 a target, the peep sight system comprising:  
3 an interfacing clip comprising a first side and an opposing second side, the  
4 first side and the opposing second side each comprising a power cable  
5 channel and a tether channel, wherein the opposing power cable  
6 channels are adapted to removably receive and retain a portion of a  
7 power cable of an archery bow, and wherein the opposing tether  
8 channels are adapted to removably receive and retain a second end  
9 portion of a tether.

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1 6. The system of claim 5, wherein the first side of the interfacing clip further  
2 comprises a first securing aperture and an alignment shaft and wherein the  
3 second side of the interfacing clip further comprises a second securing  
4 aperture and an alignment recess, the first and second securing apertures  
5 adapted to receive a fastener for removably coupling the first side and the  
6 second side together and the alignment shaft and recess adapted to align the  
7 opposing tether channels and the opposing power cable channels.

1 7. The system of claim 5, wherein the opposing tether channels each further  
2 comprise at least one tether retaining rib.

1 8. The system of claim 5, wherein each of the opposing tether channels is bent.

1 9. The system of claim 5 further comprising a peep sight comprising:  
2 a sight body having a thickness and a width; and  
3 a sight aperture and a tether-securing aperture each extending through a  
4 thickness of the sight body, the sight aperture adapted to allow a line  
5 of sight through the aperture when an archery bow is fully drawn and  
6 the tether-securing aperture adapted to removably receive and retain a  
7 first end portion of a tether substantially within the sight body.

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1 10. The system of claim 5 further comprising a tether having opposing first and  
2 second end portions, the first end portion adapted to be removably coupled  
3 into a tether-securing aperture substantially within a sight body of a peep  
4 sight, and the second end portion removably coupled substantially within the  
5 opposing tether channels, such that when an archery bow is moved into its  
6 fully drawn position, tension in the tether aligns the peep sight.

1 11. A self-aligning peep sight system for mounting on an archery bow for sighting  
2 a target, the peep sight system comprising:  
3 a solid, thermoplastic elastomer tether having opposing first and second end  
4 portions, the first end portion adapted to be removably coupled into a  
5 tether-securing aperture substantially within a sight body of a peep  
6 sight, and the second end portion adapted to be removably coupled  
7 substantially within an interfacing clip, such that when an archery bow  
8 is moved into its fully drawn position, tension in the tether aligns the  
9 peep sight.

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1 12. The system of claim 11, the first end portion of the tether further comprising a  
2 first retaining member and a second retaining member separated by a  
3 circumferential, curvilinear recess, the first retaining member adapted to  
4 removably retain the first end portion of the tether in a tether-securing  
5 aperture of a peep sight when the self-aligning peep sight system is in use, the  
6 second retaining member adapted to removably retain the first end portion of  
7 the tether in the tether-securing aperture of the peep sight when the self-  
8 aligning peep sight system is not in use, and the circumferential, curvilinear  
9 recess adapted to removably couple to a retaining portion of the tether-  
10 securing aperture of the peep sight.

1 13. The system of claim 11 further comprising a peep sight comprising:  
2 a sight body having a thickness and a width; and  
3 a sight aperture and a tether-securing aperture each extending through a  
4 thickness of the sight body, the sight aperture adapted to allow a line  
5 of sight through the aperture when an archery bow is fully drawn and  
6 the tether-securing aperture removably receiving and retaining the first  
7 end portion of the tether substantially within the sight body.

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1 14. The system of claim 11 further comprising an interfacing clip comprising a  
2 first side and an opposing second side, the first side and the opposing second  
3 side each comprising a power cable channel and a tether channel, the  
4 opposing power cable channels adapted to removably receive and retain a  
5 portion of a power cable of an archery bow, and the opposing tether channels  
6 removably receiving and retaining the second end portion of the tether.

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1 15. A self-aligning peep sight system for mounting on an archery bow for sighting  
2 a target, the peep sight system comprising:  
3 a peep sight comprising:  
4 a sight body having a thickness and a width; and  
5 a sight aperture and a tether-securing aperture each extending through  
6 a thickness of the sight body, the sight aperture adapted to  
7 allow a line of sight through the aperture to the target when an  
8 archery bow is fully drawn;  
9 an interfacing clip comprising a first side and an opposing second side, the  
10 first side and the opposing second side each comprising a power cable  
11 channel and a tether channel, wherein the opposing power cable  
12 channels are adapted to removably receive and retain a portion of a  
13 power cable of an archery bow; and  
14 a tether for positioning the peep sight in the aligned position where the line of  
15 sight is allowed through the sight aperture to the target, the tether  
16 having opposing first and second end portions, the first end portion  
17 removably coupled into the tether-securing aperture substantially  
18 within the sight body, and the second end portion removably coupled  
19 substantially within the opposing tether channels of the interfacing  
20 clip, such that when an archery bow is moved into its fully drawn  
21 position, tension in the tether aligns the peep sight.



1 16. The system of claim 15, the peep sight further comprising:  
2 a serving channel girdling the sight body substantially at the midpoint of its  
3 thickness, the serving channel adapted to accommodate at least one  
4 strand of a bowstring of an archery bow; and  
5 a serving hole extending through the width of the sight body connecting  
6 opposing serving channel portions, the serving hole adapted to receive  
7 a serving string there through, thereby facilitating serving of the peep  
8 sight in a secure, non-sliding fashion.

1 17. The system of claim 15, wherein the first side of the interfacing clip further  
2 comprises a first securing aperture and an alignment shaft and wherein the  
3 second side of the interfacing clip further comprises a second securing  
4 aperture and an alignment recess, the alignment shaft inserted into the  
5 alignment recess, thereby aligning the opposing tether channels and the  
6 opposing power cable channels, and a fastener removably coupled into the  
7 first and second securing apertures, thereby removably coupling the first side  
8 of the interfacing clip to the second side of the interfacing clip.

1 18. The system of claim 15, wherein each of the opposing tether channels is bent  
2 and comprises at least one tether retaining rib

1 19. The system of claim 15, wherein the tether comprises a solid, thermoplastic  
2 elastomer tether.

1 20. The system of claim 15, the first end portion of the tether further comprising a  
2 first retaining member and a second retaining member separated by a  
3 circumferential, curvilinear recess, and the tether-securing aperture further  
4 comprising a press fit sleeve removably coupling the first and second  
5 retaining members and the circumferential, curvilinear recess.

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